UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,704	11/30/2001	Frankie James	7781.0036-00	4300

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Finnegan, Henderson, Farabow	HAILU, TADESSE

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2173	

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DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/997,704	JAMES ET AL.
	Examiner	Art Unit	
	Tadesse Hailu	2173	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 November 2001</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-80</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-80</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/7/2003</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

1.   This Office Action is in response to the patent application number 09/997,704

filed 11/30/2001.

Information Disclosure Statement

2.   The Information Disclosure Statement submitted on 2/7/2003 is considered and

entered into the file.

Status of the claims

3.   The pending claims 1-80 are examined herein as follows.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   <u>Claims 1-5, 9-21, 25-37, 41-53, 57-69, and 73-80 are rejected under 35</u>

<u>U.S.C. 102(b) as being anticipated by Hashimoto et al (US Pat No 5,632,002).</u>

The **current invention** relates to a speech interface for a graphical user interface

(GUI) and a method for interfacing with a graphical user interface using the same. The

current invention interacts (through speech) with the displayed screen objects ("screen

areas"), Likewise, **Hashimoto** relates to a speech recognition interface system to be

used as a man-machine interface in a data processing system such as personal

computers. The speech interface enables audio input of words or vocabularies to

transmit or communicate to applications. Similar to the current invention, Hashimoto

also interacts with the displayed screen objects ("screen areas"). These screen areas are nothing more that interface objects (text and/or graphical objects) displayed across the screen area.

With regard to claims 1, 17, 33, 49, and 65:

As per "A method for providing speech control to a graphical user interface (GUI) containing objects to be selected," Hashimoto discloses a speech recognition interface method, system and computer readable medium containing instruction for enabling a speech control of a plurality of application programs executed on a computer (Abstract)

As per "dividing the GUI into a plurality of screen areas;" as illustrated in several Figs of the drawing, such as for example Figs. 80A, 80B, etc, Hashimoto discloses a plurality of application program windows distributed across the screen area.

As per "assigning priorities to the screen areas;" as illustrated, for example in Figs. 76-81, priorities are assigned (see table) to each application program windows distributed across the screen area shown in Figs. 80A and 80B (also see column 53, lines 1-40).

As per "receiving a first audio input relating to the selection of one of the objects in the GUI;" Hashimoto also discloses that each application program window distributed across the screen area includes their own recognition vocabulary list (object), for example the focused SHELLTOOL application program window has selectable recognition vocabulary list (object) including "history," "process," " list," "home," and "finish" (see Fig. 29, etc). Again as illustrated in Fig. 80, the focused application window (SHELL TOOL) with a highest priority level will receive a first

speech input relating to the selection of one of the recognition vocabulary list (object) (column 53, lines 1-40).

As per "determining the one of the screen areas that has the highest priority and includes a first object matching the first audio input;" as illustrated in Fig. 80A, for example, the focused SHELL TOOL application program window has the highest priority level so that it receives the first speech input (column 52, lines 1-23, column 53, lines 1-40) and the speech input is compared to recognition vocabulary list (object) of the SHELL TOOL, and if a match is found to the inputted speech, the matched recognized vocabulary is displayed in different form (e.g., highlighted) (see the recognized or matched speech vocabulary "copy", Fig, 21, or Fig. 53, #53F ("mail today") (column 37, lines 44-54).

As per "selecting the first object, if the determined screen area only contains one object matching the first audio input." Hashimoto also discloses comparing the speech input to the stored and recognized vocabulary list if the focused application program window contains the speech input vocabulary, selecting the first match vocabulary found from the determined application program window (column 19, lines 60-column 20, lines 12, column 52, lines 1-23).

With regard to claims 2, 18, 34, 50, and 66:

As per "using a second input to select one of the objects that matches the first audio input in the determined screen area, if the determined screen area contains more than one object that matches the first audio input." Hashimoto discloses not only speech input but also a combination of keyboard and mouse inputs are also used to implement

his invention (see for example, column 22, lines 31-43). Hashimoto also discloses that if

the speech input matches more than one vocabulary (object), then the recognized result

(the matched object) can be transmitted to all the of the speech windows (application

program windows) which share that same word (matched object), or to only the speech

focused speech window (active window) at the time of the recognition (column 63, lines

5-27).

With regard to claims 3, 19, 35, 51, and 67:

As per "marking each object matching the first audio input;" as illustrated in Fig.

21, Hashimoto also discloses shading or highlighted each word matching the speech

input (see column 20, lines 43-50, Fig. 21, see marked "copy").

As per "receiving a second audio input relating to the selection of one of the

marked objects" as illustrated in Fig. 53, mail too (53F) has received a speech focus

(marked object). When the focused object is selected, it will display its own window as

shown in Fig. 54, here a user further inputs speech such as "Supervisor" and

"Emergency" in succession (column 37, lines 44-54, column 38, lines 32-40, Figs. 53-

54).

As per "selecting the marked object that best matches the second audio input."

As illustrated in Figs-53-54, Hashimoto also discloses selecting the marked object (53F)

that best matches the second audio input (column 37, lines 44-54, column 38, lines 32-

40, Figs. 53-54).

With regard to claims 4, 20, 36, 52, and 68:

As per "removing the markers." As illustrated in Figs. 80A-80B, the speech focus

originally focused on the *shell tool* in FIG. 80A is changed (i.e. the marking is removed

from *shell tool*) to that focused on the newly activated *dtp system*, such that the speech

input for the *dtp system* becomes possible.

With regard to claims 5, 21, 37, 53, and 69:

As per "marking the objects includes marking the objects with icons." Hashimoto

discloses marking (e.g. shading) the object (e.g. *copy*, etc Fig. 21) with icon. Also as

illustrated in Fig. 53, and elsewhere Hashimoto also discloses marking (shading, see

Fig. 53) the objects (e.g., MAIL TOOL, 53F) with icon (i.e., mail tool icon). Similar

illustrations are also shown in Fig. 69, and column 48, lines 10-14.

With regard to claims 9, 25, 41, 57, and 73:

As per " assigning priorities to the screen areas includes assigning priorities to

the screen areas based on usage." Hashimoto discloses wherein assigning priorities to

the screen areas includes assigning priority level to each application program window or

to each recognized vocabulary word that are distributed across the screen area based

on usage, that is the focused application always assigned the highest priority unless an

pop-up application window (e.g. emergency message) appears on the across screen.

Furthermore, as illustrated in Figs. 76, 78, 81, etc, the application program windows are

shown with their assigned priority level (column 42, lines 66-column 43, lines 8).

With regard to claims 10, 26, 42, 58, and 74

As per "assigning priorities to the screen areas includes assigning adjustable

priorities to the screen areas." Hashimoto also discloses priority for the speech output

can be used effectively by setting or modifying it to a higher value in a case of

emergency, such that the user's attention can be directed to it immediately, i.e., the

task priority level setting (Fig. 81) for each application program window that are

distributed across the screen area can be modified as needed specially during

emergency (column 42, lines 66-column 43, lines 8).

With regard to claims 11, 27, 43, 59, and 75:

As per "indicating the one of the screen areas having the highest priority." As

illustrated in Figs. 76, 78, 81, 103, etc Hashimoto also discloses an application program

with window having the highest priority level (see also column 53, lines 1-8).

With regard to claims 12, 28, 44, 60, and 76:

As per "indicating the highest priority screen area includes indicating the highest

priority screen area with a visual output." As illustrated in Fig. 80A, the visual indicator

(highlighted shaded lines) on shell tool application window indicates that the application

has a focus and has the highest priority over the rest of the application, similarly, the dtp

system in Fig. 80B, has a highest priority over the rest of the applications as shown with

a visual (shaded lines) (see also column 53, lines 1-40).

With regard to claims 13, 29, 45, 61, and 77:

As per "indicating the highest priority screen area with visual output includes

indicating the highest priority screen area with a visual output that includes

highlighting." Hashimoto also discloses the visual output includes highlighting (see

Figs. 21, 28, 69, 80A-8B, etc.) Hashimoto further discloses that a window is focused

(active) has a highest priority. The focus is indicated by displaying the window frame of

the focused window in thicker lines than the other windows, while the speech focus is

indicated by changing the color of the title bar of the focused window from that of the

other window (column 20, lines 43-50).

With regard to claims 14, 30, 46, 62, and 78:

As per "confirming the receipt of the first audio input." Hashimoto also discloses

that in his vocabulary display program, whenever the speech recognition of the input

speech is made, this vocabulary display program also receives the recognition result

(confirmation) transmitted to the appropriate application program 5, such that the

recognized word can be displayed in a color different from the rest as indicated by the

shaded region in FIG. 21, in order to facilitate the confirmation of the speech input

recognized by the speech recognition system 3 (column 20, lines 43-50).

With regard to claims 15, 31, 47, 63, and 79:

As per "confirming the receipt of the first audio input includes confirming the

receipt of the first audio input with an audio output." Hashimoto discloses a speech

recognition unit (SRU) 12 for receiving and recognizing an input speech and outputting

a recognition result obtained therefrom; Hashimoto also discloses recognizing the

receipt of the first speech (or audio input) includes recognizing the receipt of the first

speech input with an speech output (Fig. 6, column 58, 11-27, column 71, lines 14-21,

column 42-51).

With regard to claims 16, 32, 48, 64, and 80:

As per "A method for using a graphical user interface (GUI)," Hashimoto

discloses a speech recognition interface method, system and computer readable

medium containing instruction for enabling a speech control of a plurality of application

programs executed on a computer (Abstract).

As per "receiving a first audio input relating to the selection of one of the objects

in the GUI;" Hashimoto also discloses that each application program window

distributed across the screen area includes their own recognition vocabulary list

(object), for example the focused SHELLTOOL application program window has

selectable recognition vocabulary list (object) including "history," "process," " list,"

"home," and "finish" (see Fig. 29). Again as illustrated in Fig. 80, the focused

application window (SHELL TOOL) with a highest priority level will receive a first

speech input relating to the selection of one of the recognition vocabulary list (object)

(column 53, lines 1-40).

As per "determining the one of the screen areas that has the highest priority and

includes a first object matching the first audio input;" as illustrated in Fig. 80A, for

example, the focused SHELL TOOL application program window has the highest

priority level so that it receives the first speech input (column 52, lines 1-23, column 53,

lines 1-40) and the speech input is compared to recognition vocabulary list (object) of

the SHELL TOOL, and if a match is found to the inputted speech, the matched

recognized vocabulary is displayed in different form (e.g., highlighted) (see the

recognized or matched speech vocabulary "copy", Fig, 21, or Fig. 53, #53F ("mail

today") (column 37, lines 44-54).

As per "selecting the first object, if the determined screen area only contains one

object matching the first audio input;" Hashimoto also discloses comparing the speech

input to the stored and recognized vocabulary list if the focused application program

window contains the speech input vocabulary, selecting the first match vocabulary

found from the determined application program window (column 19, lines 60-column 20,

lines 12, column 52, lines 1-23).

As "using a second input to select one of the objects that matches' the first audio

input in the determined screen area, if the determined screen area contains more than

one object that matches the first audio input." Hashimoto discloses not only speech

input but also a combination of keyboard and mouse inputs are also used to implement

his invention (see for example, column 22, lines 31-43). Hashimoto also discloses that if

the speech input matches more than vocabulary (object), then the recognized result (the

matched object) can be transmitted to all the of the speech windows (application

program windows) which share that same word (matched object), or to only the speech

focused speech window at the time of the recognition (column 63, lines 5-27).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 6-8, 22-24, 38-40, 54-56, and 70-72 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Hashimoto et al (5,632,002) in view of Tomonari Kamba et

al, "Using small screen space more efficiently," April 13-18, 1996, CHI 96.

With regard to claims 6, 7, 22, 23, 38, 39, 54, 55, 70, and 71:

    Hashimoto discloses a recognized word (object) can be displayed in a color different from the rest as indicated by the shaded region (icon) in Figs. 21, etc. Thus, Hashimoto discloses marking (e.g. shading) the object (e.g. *copy*, etc Fig. 21) with copy icon. Also as illustrated in Fig. 53, and elsewhere Hashimoto also discloses marking (shading, see Fig. 53) the objects (e.g., MAIL TOOL, 53F) with mail tool icon. Hashimoto also discloses overlapping or speech focused application window (e.g. Fig. 28, etc). Hashimoto does not, however, suggest, or disclose that the shading or marking the objects with semi-transparent icons that overlap the objects.

    Tomonari Kamba et al (Kamba) describes techniques for maximizing the efficient use of small screen space by combining delayed response with semi-transparency of control objects ("widgets") and on-screen text (abstract, Figs. 2 and 3). Kamba further discloses semi-transparent icons that overlap the objects. As shown along the bottom of the screen (Fig. 3) text objects are shown overlaying over several icons (also see page 384, second column, lines 1-11).

    Kamba and Hashimoto are analogous art because they are from the same field of endeavor, that is object interaction.

    At the time of the invention, it would have been obvious to a person of ordinary skill in the art to substitute the shaded icon of Hashimoto with semi-transparent widget (icon) of Kamba.

    The suggestion/motivation for doing so would have been to provide a more efficient use of screen space as suggested by Kamba (Kamba, abstract).

Therefore, it would have been obvious to combine Kamba and Hashimoto to obtain the

invention as specified in claims 6.7, 22, 23, 38, 39, 54, 55, 70, and 71.

With regard to claims 8, 24, 40, 56, and 72:

Hashimoto in view of Kamba further discloses marking the objects with

semi-transparent icons that overlap the objects includes marking the objects with

semi-transparent icons that have numbered labels. As illustrated in Fig. 103, each

application window has a numbered label id. Also as illustrated in Fig. 116, each word

also identified by its number label (see also Hashimoto, Figs. 58A, 58B, 103, 116, etc).

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Tadesse Hailu, whose telephone number is (703) 306-

2799. The Examiner can normally be reached on M-F from 10:00 - 6:30 ET. If attempts

to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, John

Cabeca, can be reached at (703) 308-3116 Art Unit 2173 CPK 2-4A51.

7.   Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Group receptionist whose telephone number is

(703) 305-3900.

Tadesse Hailu

August 17, 2004